



JCB POWER SYSTEMS LTD.

EXECUTIVE ORDER U-R-049-0065  
New Off-Road  
Compression-Ignition Engines

Pursuant to the authority vested in California Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-19-095;

**IT IS ORDERED AND RESOLVED:** That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2022	NJCBL04.8S12	4.765	Diesel	8,000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Electronic Control Module, Exhaust Gas Recirculation, Turbocharger, Charge Air Cooler, Selective Catalytic Reduction-Urea, Ammonia Oxidation Catalyst			Crane, Loader, Tractor, Dozer, Pump, Compressor, Forklift, Generator Set	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 4 Final	<b>STD</b>	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		<b>CERT</b>	0.08	0.37	--	0.1	0.02	--	--	--

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

**BE IT FURTHER RESOLVED:** That the listed engine family is conditionally certified pending submission of additional test data to verify compliance with useful-life emission standards. The manufacturer must submit the necessary data by March 31, 2022 to confirm or correct the certification emissions levels on this conditional certification. Failure to submit the necessary data or resolve concerns by the specified date, shall be cause for the Executive Officer to rescind this conditional certification, in which case all engines covered under this conditional certification and introduced into commerce in the State of California shall be deemed uncertified pursuant to Health and Safety Code Section 43153 and subject to civil penalties pursuant to Health and Safety Code Section 43154.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

**This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.**

Executed on this 21st day of January 2022.

Allen Lyons, Chief  
Emissions Certification and Compliance Division

Model	Code	Trim	Config	Displacement	Displacement - Units	Peak Power	Peak Power - Units	Peak Power - Speed (rpm)	Peak Power - Fueling	Peak Power - Fuel Units	Peak Torque	Peak Torque - Units	Peak Torque - Speed (rpm)	Peak Torque - Fuel Units	OBD	GHG	Special	Notes	
C1A	448 TA4-108	N/A	I4	4.765	Liters	145.2	horsepower	2000	109	mm3/stroke	413	N-m	1500	122	mm3/stroke	N/A	N/A	N/A	N/A
C1C	448 TA4-108	N/A	I4	4.765	Liters	145.2	horsepower	2000	109	mm3/stroke	413	N-m	1500	122	mm3/stroke	N/A	N/A	N/A	N/A
D1A	448 TA4-108	N/A	I4	4.765	Liters	145.2	horsepower	2000	109	mm3/stroke	413	N-m	1500	122	mm3/stroke	N/A	N/A	N/A	N/A
D1A	448 TA4-129	N/A	I4	4.765	Liters	173.3	horsepower	2050	135	mm3/stroke	509	N-m	1500	149	mm3/stroke	N/A	N/A	N/A	N/A
E1A	448 TA4-129	N/A	I4	4.765	Liters	173.3	horsepower	2050	135	mm3/stroke	509	N-m	1500	149	mm3/stroke	N/A	N/A	N/A	N/A
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I2A	448 TA4-108	N/A	I4	4.765	Liters	145.2	horsepower	2000	109	mm3/stroke	413	N-m	1500	122	mm3/stroke	N/A	N/A	N/A	N/A
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V1A	448 TA4-108	N/A	I4	4.765	Liters	145.2	horsepower	2000	109	mm3/stroke	413	N-m	1500	122	mm3/stroke	N/A	N/A	N/A	N/A
V1C	448 TA4-108	N/A	I4	4.765	Liters	145.2	horsepower	2000	109	mm3/stroke	413	N-m	1500	122	mm3/stroke	N/A	N/A	N/A	N/A
W1A	448 TA4-108	N/A	I4	4.765	Liters	145.2	horsepower	2000	109	mm3/stroke	413	N-m	1500	122	mm3/stroke	N/A	N/A	N/A	N/A
W1C	448 TA4-108	N/A	I4	4.765	Liters	145.2	horsepower	2000	109	mm3/stroke	413	N-m	1500	122	mm3/stroke	N/A	N/A	N/A	N/A
F1C	448 TA4-129	N/A	I4	4.765	Liters	173.3	horsepower	2050	135	mm3/stroke	509	N-m	1500	149	mm3/stroke	N/A	N/A	N/A	N/A
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E3A	448 TA4-129	N/A	I4	4.765	Liters	173.3	horsepower	2050	135	mm3/stroke	509	N-m	1500	149	mm3/stroke	N/A	N/A	N/A	N/A
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C2A	448 TA4-108	N/A	I4	4.765	Liters	145.2	horsepower	2000	109	mm3/stroke	413	N-m	1500	122	mm3/stroke	N/A	N/A	N/A	N/A